Issue Brief

On the Right Track?
Public Pension Reforms in the Wake of the Financial Crisis

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About NIRS

The National Institute on Retirement Security is a non-profit research institute established to contribute to informed policy making by fostering a deep understanding of the value of retirement security to employees, employers, and the economy as a whole. NIRS works to fulfill this mission through research, education, and outreach programs that are national in scope.

Executive Summary

This brief builds upon the 2008 National Institute on Retirement Security (NIRS) analysis, entitled "Look Before You Leap," which documented the transition and other costs associated with closing a pension plan to newly hired employees. As the economy slowly recovers from the Great Recession, state and local governments continue to face pressure to follow the private sector's lead in closing defined benefit (DB) pensions and freezing benefits. This brief further examines key factors that have contributed to private and public employers' decisions regarding whether to keep or freeze their DB pensions; and policy changes that have been implemented to address public pension plan sustainability since 2008.

We find that public employers face a different organizational context than private employers, and consequently have pursued different labor market strategies. By and large, state and local policy makers have evaluated plans with an eye to affordability, sustainability, and human resource goals and have generally found that a wholesale shift to defined contribution (DC) plans for new hires is not optimal. We also highlight key implications of switching to DC-only plans for worker retirement security and public sector employment relations that warrant public consideration. The following outlines our key findings:

1) Distinct business and labor market dynamics and regulatory pressures led to the decline of pensions in the private sector that do not necessarily apply to governments.

- In the private sector, industry and labor market restructuring led new core industries, especially information technology, to pursue flexible labor strategies, while low-wage, low-benefit jobs proliferated in the service sector. Public employers have remained committed to stable employment relations and use pensions to reward long tenure.
- Onerous regulations and accounting rules governing private pensions have made required pension contributions unpredictable and volatile, creating significant financial uncertainty for employers. Public sector pensions have been able to smooth out the effects of business cycles on funding requirements to a much greater degree.
- Corporate focus on maximizing shareholder value often conflicts with workers' need for retirement security in the context of retirement plan sustainability issues. State and local governments use DB pensions to serve the public interest by providing public services in a high quality and cost effective manner, while also providing workforce retirement security.

2) A policy of closing or freezing pensions and switching to DC accounts is not necessarily the best approach for government employers and taxpayers. Recognizing this, states are modifying their pensions to ensure long-term sustainability.

- Since 2008, 45 states have enacted pension reforms. The vast majority of these states have modified their existing pension plans. The most common plan modifications are increased employee contributions; reduced DB benefits for new hires including changes to retirement ages; and Cost of Living Adjustment (COLA) reductions for retirees and existing workers.
- While a number of states have, for many years, offered DC accounts as an option in lieu of a DB pension, no state has shifted to a DC-only plan since 2005. Some legislative changes in this period involve a mandatory hybrid arrangement consisting of a reduced DB pension benefit or cash balance plan with a DC plan.
- Closing pensions and shifting to DC accounts for new hires is less cost-efficient compared to adjusting DB benefits or switching to a hybrid plan in which limited contributions continue to flow into the existing DB plan.

- Providing the same retirement income from a traditional pension costs nearly twice as much (83 percent more) when funded through a 401(k)-style account, representing an inefficient use of tax dollars.
- For plan sponsors that comply with generally accepted accounting principles, freezing a pension compresses the cost of amortizing existing unfunded liabilities, increasing the cost of the plan until the unfunded liabilities are eliminated. It can also increase unfunded liabilities when changed cash flow and liquidity needs translate to lower investment earnings.

3) Freezing or closing DB plans and shifting to DC-only accounts threatens workers' retirement security, with mid-career employees being the hardest hit.

- Experience with frozen pensions indicates that long-tenured, mid-career employees are the most likely to see the greatest reduction in anticipated income when they retire.
- While younger workers theoretically have time to make up ground, evidence indicates that in reality, they face substantial risk of falling short.

4) Because pensions play an important role in public sector compensation, freezing or closing DB plans and shifting to DC accounts may negatively affect the ability of public employers to recruit and retain qualified workers.

- If retirement benefits consisted only of DC accounts, the public sector would likely risk decreased productivity and worker commitment and face increased recruitment costs.
- Studies have found that public sector workers' compensation—including benefits—is about the same or slightly lower than that of their peers in the private sector with the same education and experience. Government employers that stop DB benefits or substantially scale them back for new hires are likely to become less competitive for skilled workers over the long run unless they increase other forms of compensation.

Introduction

Since the collapse of the housing bubble in 2007-2008 and the ensuing financial crisis, workers' and households' anxiety about future retirement security has increased dramatically. Eighty-four (84) percent of Americans are concerned that current economic conditions are undermining their ability to achieve a secure retirement. [1] Two-thirds of Americans are very worried or somewhat worried they will not have enough money for retirement, with a significant increase in concern among those in their late 30's and early 40's. [2]

At the same time, the share of workers covered by defined benefit (DB) pensions—one of the key pillars of middle class retirement income security alongside Social Security and private savings—has rapidly declined in the private workplace and been replaced with defined contribution (DC) accounts, such as 401(k)s, in which individual workers bear all the risk.[3] While DB pensions are still widespread in the public sector, financial fallout from the Great Recession prompted extensive changes to public pension systems around the country over the last 4 years.[4] State employers have largely adjusted their existing DB pensions, while some local agencies have closed DB pensions to new employees and directed them into DC accounts.[5]

Public pensions at all levels continue to face political pressure to follow in the footsteps of the private sector by shifting to DC plans. However, such a move entails significant transition costs and other serious ramifications in both the short and long term that warrant serious evaluation.

This brief builds upon the 2008 National Institute on Retirement Security (NIRS) analysis, entitled "Look Before You Leap," which documented the transition and other costs associated with closing a pension plan to newly hired employees. Drawing on recent research, this issue brief explores key trends in private pension freezes and public pension plan closures, highlighting the factors that have influenced employers' and policymakers' decisions regarding whether to reduce or eliminate benefits. This brief also offers additional considerations regarding the impact of retirement benefit changes on worker retirement security and public employers' ability to recruit and retain skilled workers that warrant public consideration.

Since the 1980s, corporate business practices and the combined effect of regulations and stock market volatility on pension accounting and funding have made private DB pensions vulnerable to being frozen, at the same time that increasing reliance on flexible labor markets has made employment less secure. In contrast, government employers have continued to pursue stable employment and reward long tenure by using pension benefits. Additionally, in the aftermath of the 2007-2008 financial crisis, state policy makers have consistently and carefully evaluated existing pensions and alternative proposals with a focus on affordability, sustainability, and human resource goals.

If public employers were to abandon DB pensions en masse like private employers, workers would face decreased retirement security, but they would not be the only ones affected. Employers and the taxpayers would cease to gain from DB pension cost efficiencies and labor market benefits, as well as face increased costs for paying down existing pension liabilities. Significantly, where states have evaluated alternative retirement benefits, they have found that freezing or closing the DB pension and switching to a DC-only plan for new hires is an expensive proposition.

The remainder of this introduction briefly outlines common types of pension freezes and regulations protecting accrued pension benefits in the private and public sectors.

Pension Freeze Types and the Legal Status of Pension Benefits

When an employer takes action to prevent new employees from earning benefits under their DB pension, this is called "closing" the plan. When they also limit future benefit accrual for existing participants, this is generally referred to as "freezing" the plan.[6] Some pension data sources count all closed plans as "frozen" regardless of the status of future benefit accruals; however, frozen pensions are more commonly understood

to entail the reduction or elimination of future benefit accruals for some or all existing workers. A closed or frozen DB pension continues to pay retirement benefits to current retirees and to existing workers when they reach the plan's retirement age. The employer remains responsible for providing the funding required to meet these obligations.

Pension freezes vary in the extent to which workers' retirement benefits are affected. The term hard freeze is generally associated with plans in which there are no further benefit accruals for any of their members. In hard-frozen plans, benefits are calculated based on the years of service and pay levels on record as of the date of the freeze. The term "partial freeze" is often used to refer to frozen plans in which full benefit accrual continues for some but not all employees. The term "soft freeze" is less clearly defined, but generally applies to plans in which future benefit accruals continue on a limited basis, with either the years of service or the pay level used to calculate pension benefits frozen as of the date of the freeze. Plan-level distinctions notwithstanding, workers for whom future benefit accrual is eliminated face the most significant impact on their retirement security.

The degree of legal protection for workers' pension benefits varies between private and public sectors and among states. The federal Employee Retirement Income Security Act of 1974 (ERISA) regulates the operation of private sector single employer DB pensions. It protects workers' benefits—up to a limit—which are insured through the Pension Benefit Guaranty Corporation (PBGC) should a pension plan be terminated due to the employer declaring bankruptcy. ERISA protects the retirement benefit workers have already earned or accrued, based on their current salary and years of service, from being reduced. However, corporations have wide latitude to change or eliminate future benefit accrual for existing employees.

In the public sector, benefit protections in DB pensions are determined by state law. Accrued benefits are generally protected. While the sanctity of future benefit accruals for current employees varies by state, laws in most states protect these benefits to a much greater degree than does ERISA, whether through the state constitution or under the "contracts clause" which prohibits the government from impairing a contractual arrangement, such as employment.[7]

Due in part to the above differences in the legal status of pension benefits, freezes are much more common in the private sector than in the public sector.[8] In the private sector, DB plans are not only closed to new workers, but often reduce or eliminate benefit accruals. Nearly all employees hired after a freeze are provided an alternative retirement plan, with almost 84 percent of private sector employees switched to a DC–only retirement benefit.[9]

Because of the generally greater legal protection for benefits promised to public employees under state law, most public pension plan changes only affect new employees. The public sector has largely retained DB pensions, changing pension formulas for new hires rather than excluding them altogether. When this occurs, the retirement system closes one "tier" and puts new participants into a different tier. One retirement system could have multiple tiers. Thus, 95 percent of the new public employees hired after closing the plan remain covered by a DB pension, albeit with less generous benefits.[10] Among the few states that have closed DB pensions to new employees, the vast majority of existing workers have continued to accrue benefits, generally with no reduction in their pension benefit formula. A small number of public plans are actually frozen; that is, they have reduced DB benefit accruals among existing workers.

I. Private Sector Pension Freezes and Shift to DC Plans

Today, workers newly hired by most corporate employers have only a DC plan as their retirement benefit. This is because the majority of single employers who sponsor DB pensions have frozen them, and the vast majority of firms that have emerged in the last generation have chosen DC plans. However, it is important to understand the dynamics behind the private employers' retirement plan choices and how such forces differ from those facing public sector employers. This section begins by presenting recent data on private pension freezes and the proliferation of DC accounts. We then briefly outline key historical explanations for why private employers moved from DB pensions starting in the late 1970s, and then focus on the role of regulations in making private pensions less sustainable during the past decade. The conclusion of this section draws out differences between these dynamics and those reflected in public employers' continued commitment to DB pensions during the same time frame.

Distinct business and labor market dynamics led to the decline of pensions in the United States (U.S.) private sector. Industry and labor market restructuring led new core industries, especially information technology, to pursue flexible labor strategies—characterized by weak attachment between firms and employees and reliance on spot labor markets in lieu of internal labor markets—while low-wage, low-benefit jobs proliferated in the service economy. Onerous regulations and accounting rules created significant financial uncertainty and cost volatility. Finally, outcomes of private sector retirement benefit practices often have not been optimal from a human resource and a social policy perspective. In designing compensation structure, private employers significantly underestimate the value of pensions to workers, and the resulting inadequacies in retirement wealth among workers today poses a major public policy challenge.

Recent History of Private Pension Freezes

Prior to the Great Recession, a significant share of private sector DB pension sponsors had frozen plans. An analysis of PBGC data by the Government Accountability Office (GAO) found that in 2005, 14 percent of private pensions were under a hard freeze. The GAO analysis also found that the combined number of freezes and closures had increased by 50 percent between 2003 and 2005.[11] The GAO's own survey of single-employer DB plan sponsors found that in 2008, slightly more than half of private DB pension sponsors had at least one frozen or closed plan, and 23.3 percent of all plans were under a hard freeze.[12] However, larger plans sponsored by employers with 10,000 participants or more, which accounted for two-thirds of participants in the study universe, were less likely to have a hard frozen plan. Just 9.4 percent of such large employers stopped all employees from earning new benefits.[13] Among Fortune 1000 companies, Towers Watson reported that of the 638 corporations that offered DB pensions, 500 had no frozen plans in 2007.[14]

The share of active participants affected by plan freezes, while significant, is mitigated by the fact that the largest sponsors have been less likely to freeze their plans. GAO estimated that 21 percent of active participants in DB plans—or 3.3 million workers—were affected by a freeze.[15] Among these, 1.7 million were affected by a hard freeze, and 1.6 million were affected by a soft, partial, or other freeze.

Pension freezes and the shift to DC plans accelerated during the Great Recession and leveled off somewhat as the economic recovery continued slowly. The Bureau of Labor Statistics' National Compensation Survey (NCS) confirms this trend; the share of private sector DB pension participants covered in frozen plans increased from 19 percent in 2009 to 25 percent in 2012. The share in hard-frozen plans, in which no participants continued to accrue benefits, increased from roughly 4 percent to approximately 8 percent.[16] In contrast, only 10 percent of state and local workers were covered by frozen DB plans in 2009, the latest year

As of 2009, two-thirds (67 percent) of private sector workers in frozen DB pensions were in plans that were frozen within the 5 years prior to the survey.[18] (By way of contrast, 94 percent of public employees in closed or frozen plans were in DB pensions that were closed or frozen more than 5 years prior to the 2009 NCS survey.[19]) As of 2012, however, 58 percent of private sector workers affected by freezes are in plans that were frozen in the past 5 years, and only 1 percent is in plans frozen in the past 1 year, indicating that the pace of pension plan freezes have leveled off as the economy has stabilized.[20]

The slow-down in private sector pension freezes is confirmed by a recent Towers Watson survey of DB plan sponsors at mid-size and large corporations that found that a majority of sponsors, including a large majority of large sponsors, had no plans to change their pensions in the next few years.[21] Similarly, another recent survey by AonHewitt reports that the post-crash wave of freezes appears to have tapered off, and that three–quarters of the sponsors of active DB pensions indicated that one of the reasons for keeping their plan open was that the "DB plan aligns with our total rewards philosophy."[22]

Forces behind the Long-Term Shift from DB to DC

The recent history of pension freezes is just the latest chapter in the historical shift from DB pensions to DC accounts in the private sector that began in the late 1970s and accelerated during the 1980s. This shift can be explained in large part by the interplay between structural changes in the industrial makeup of the economy, business strategies pursued by U.S. corporations in the context of economic restructuring, and ensuing changes in employment relations including the weakening of attachments between employers and employees.

The changing industrial mix of employment over the past three decades is a significant factor in the decline of DB pensions. This includes the decline of older manufacturing industries that were unionized and promised career employment; the emergence of new industries that pursued flexible employment strategies; and the growth of industries in lower wage segments of the labor market, including the service sector, where employers traditionally have not offered retirement benefits. Gustman and Steinmeier found that at least half of the trend toward DC plans and away from DB plans between 1977 and 1985 was due to "a shifting employment mix toward firms with industry, size, and union status characteristics which have historically been associated with lower defined benefit plan rates."[23] Aaronson and Coronado found that "industries with a shift in demographic and firm characteristics that tend to favor more flexible employment contracts experienced a significantly larger increase in DC pension coverage and decline in DB pension coverage" during the 1980s and 1990s.[24]

Another related factor is comprised by the specific technological strategies and associated employment relations pursued by U.S. corporations since the 1980s. For example, Lazonick argues that as technology-driven industries shifted from proprietary knowledge to industry-wide standards, firms abandoned the idea of lifetime employment and created a mobile labor force. Older technology firms froze DB pensions as they sought to shed older workers and recruit younger workers with new technical skills.[25] New technology firms also pioneered flexible labor practices—including the growing use of contract, temporary, and other forms of insecure employment in routine production—that became the model for other industries.[26] However, firms still wanted to recruit and retain skilled workers and have utilized stock options as a form of deferred compensation[27], something that is not available in the public sector.

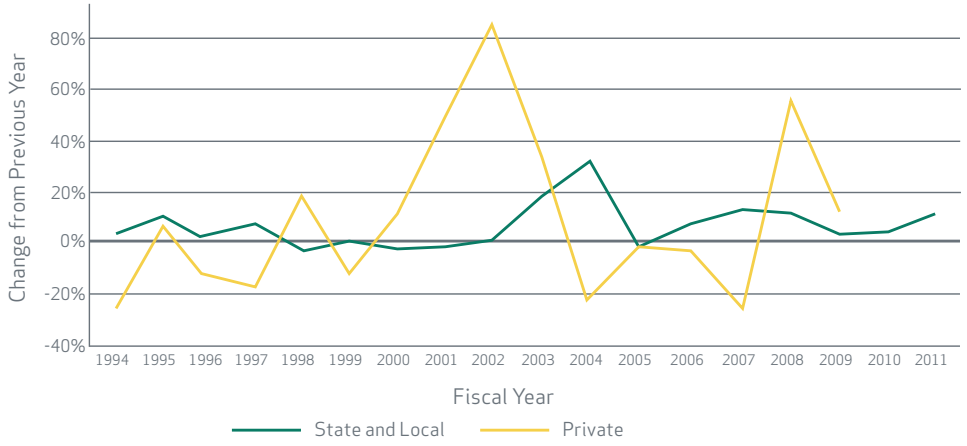
While industry restructuring and new business models left corporations less committed to DB pensions and their value as a human resource tool, accounting standards issued by the Financial Accounting Standards Board made DB pensions vulnerable to financial exploitation. Pension fund assets and liabilities are reported on corporate balance sheets. When stock prices fall on the assets held in the plan, firms report larger unfunded liabilities. Conversely, when the stock market is booming, firms appear flush with financial wealth.

According to Schultz, this has prompted many corporations to raid assets during bull markets, and when unfunded liabilities soared during bear markets, they often chose to freeze their pension funds.[28]

The Impact of the Pension Protection Act on Corporate DB Pensions

Since 2001, DB pension sponsors in both the private and public sectors have contended with two periods in which stock values plummeted concurrently with interest rates. These forces present inherent difficulties for any pension, but regulations governing private sector pensions magnified the financial impact on private sponsors. A comparison of changes in year-to-year employer contributions illustrates the large difference in the magnitude volatility for corporate and public DB plans (Figure 1). Due in large part to this impact, healthy employers started freezing their pensions at startling rates in the early 2000s.[29] This trend intensified after the Pension Protection Act of 2006 (PPA).

Figure 1:
Annual Change in DB Pension Contributions, 1994-2011



Source: Munnell et al. 2006; Annual Survey of State and Local Pensions; and Department of Labor Form 5500.
Note: Private sector data nor available for 2010 and 2011.

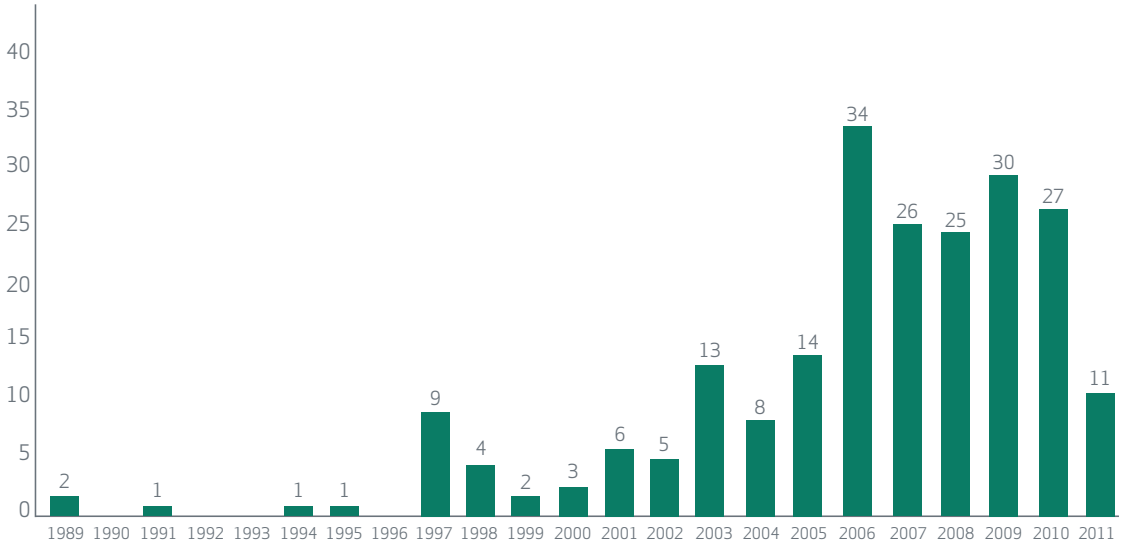
Boivie and others have found that onerous laws and regulations enacted since the 1970s, including the PPA, have created complicated funding rules and increased contribution volatility.[30] The PPA increased DB plan funding requirements in several ways. The legislation increased the plan funding target to 100 percent (from 90 percent), accelerated the amortization of funding shortfalls to just 7 years (from 30 years), required more conservative funding assumptions, and shortened the period over which employer could average the interest rates used to calculate assets and liabilities to just 2 years (from 4-5 years).

As a result, many experts believe that the PPA legislation made it even more difficult for plan sponsors to continue their DB pensions, as it increased funding volatility just as the economy and interest rates went in negative directions during the stock market downturn of 2008.[31] Munnell, Haverstick, and Soto found that the PPA specifically caused pension funding to be much more volatile and contributions to be much less predictable.[32]

The impact of the PPA is clear. Among the Fortune 1000 companies, pension freezes accelerated rapidly after the law was passed (Figure 2): 127 incidents of DB pension freezes occurred after 2006, accounting for 70 percent of freezes since 2004.[33] Overall DB sponsorship among these firms dropped from 59 percent in 2004 to 35 percent in 2011. These DB pension sponsors faced significant funding increases under the stringent PPA funding policies due to the low interest rates and 7-year amortization period to address the

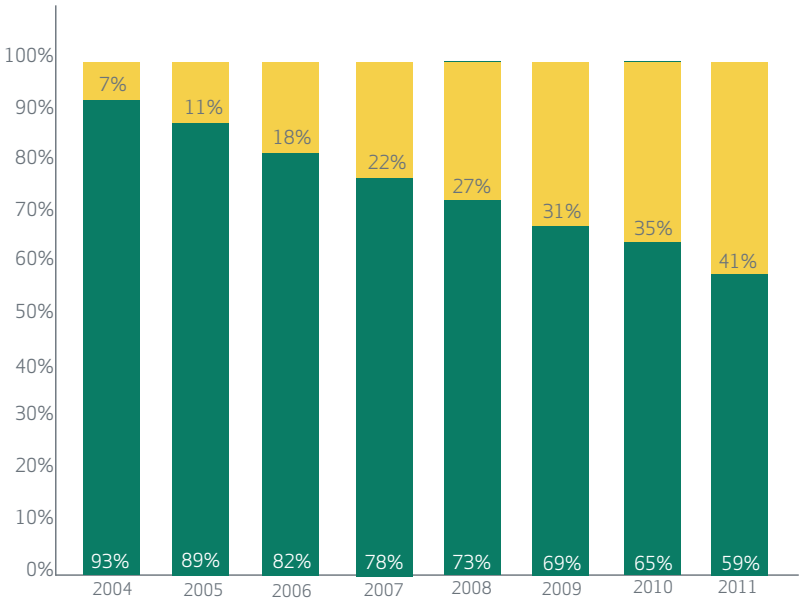
sizeable drop in asset values from the 2008-2009 market crash. Thus, 237 of the Fortune 1000 companies had one or more frozen DB pensions by 2011.[34] While these large companies understood the value of DB pensions for their human resource goals, by 2011 the percent of Fortune 1000 companies that had no frozen plan fell to 59 percent, a stark decline from the 93 percent in 2004 (Figure 3).[35]

Figure 2:
Pension Freezes among Fortune 1000 Companies, 1989-211



Source: Adapted from McFarland 2011, Figure 2.

Figure 3:
Share of Fortune 1000 DB Pension Sponsors with Frozen Plans and No Frozen Plans, 2004-2011



Source: Authors' calculations based on data from McFarland 2011.

Sponsor with one of more frozen plans

Sponsor with no frozen plans

In a GAO survey conducted shortly after the enactment of the PPA, respondents rated "unpredictability/volatility of funding requirements" and "annual contributions/impact on cash flow" as the top two major reasons for deciding to freeze DB pensions.[36] They reported that they were uncertain about future plans for further freezes of DB pensions.[37] Sponsors of frozen DB pensions among the Fortune 1000 companies also reported similar concerns about cash flow and contribution volatility.[38] Notably, DB pension sponsors have been more concerned about cash flow demands from spiking contribution requirements than about the general cost of their plans.

The Public Sector Difference

Public employers have not faced the kinds of business dynamics and regulatory pressures described above, nor have they pursued similar labor strategies. They also serve a different mission than do private corporations, which bears on how they might view retirement benefit policy.

First, unlike most private employers, public employers have continued to favor internal labor markets as a strategy to foster human capital formation—in other words, lower turnover, job ladders, and firm-specific skill development. This is reflected in compensation policies that reward long tenure, including the use of DB pensions. This strategy is linked to public employers' greater recognition of employee preferences. Boivie finds that the choice of switching from a DB pension to a DC plan appears to rest exclusively with the employer among private sector plan sponsors, and that private sector employers may not understand worker preferences.[39] In contrast, public employers' choice of remaining committed to their DB pensions seems to reflect a stronger recognition of, and responsiveness to, employee preferences for a secure pension compared to private employers.[40] The role of pensions in public employee compensation and their relationship to human resource management are addressed in more detail later in this brief.

Second, as Figure 1 illustrated, public pension funding has historically been much more stable. This is due to regulations that make it easier for public pensions to smooth out the effects of normal business cycles on required contributions. While some advocate that public sector pension requirements become aligned with the same private sector regulations that made corporate pensions financially volatile and unsustainable, others argue that key features of government make such changes ill-advised.[41] For example, while corporations might go out of business or be bought and sold, government is a more stable entity.

Finally, while corporate focus on maximizing short-term shareholder value often conflicts with the goal of providing retirement income security to employees, state and local government serve a different mission: the public good. In this regard, public employee retirement policy provides an opportunity for policy makers to achieve multiple objectives by facilitating the ability of public employers to attract and retain skilled workers and provide public services in a high-quality and cost-effective manner, while also promoting the retirement security of the sizeable workforce that is employed by state and local government.

II. Is Closing DB Pensions and Switching to DC Plans a Good Deal for Public Employers?

DB pensions are the primary and occasionally the only retirement system available to public employees. However, faced with declining tax revenues, pressure for growing services due to the prolonged downturn and increase in plan contributions to make up for investment losses, 45 states and many local governments have adopted an unprecedented amount of changes to pension benefits since 2008.[42] Nonetheless, there is mounting pressure for governments to offer only DC plans to new hires—and some would even reduce or eliminate future benefits for existing workers. This section outlines the reasons why public employers have, by and large, refrained from moving in this direction. Few states have closed or frozen their DB pensions, and none have chosen to enact a hard freeze. Public employers have been responsive to employee preferences for DB pensions, and also seem to have carefully evaluated their decisions in terms of human resource goals and realistic estimates of the cost of different retirement benefit models.

Few States Have Closed or Frozen Their Pensions

According to the 2009 NCS, when a public pension closure or freeze occurs at the state and local government level, 99 percent of existing employees continue to accrue benefits in the DB pension. As of 2009, only Michigan and Alaska required new public employees to join a DC plan.[43] Michigan has operated a DC plan for some of its general employees since 1997 and Alaska made a similar switch in 2005. West Virginia took a different step in 2005, closing the Teachers Defined Contribution Retirement and switching all newly hired teachers back into the Teachers Retirement System, a DB pension plan the state had closed in 1991.[44]

State governments are using various strategies to manage their increasing DB pension costs due to the financial condition they encountered after the financial crisis, but they have generally continued to adopt pension reforms prospectively and have not adopted freezes.

- In 2008, Georgia adopted a hybrid approach that combines a lower DB pension benefit with a matching contribution to a 401(k) plan for employees hired after January 1, 2009.
- Utah made plan changes for new employees hired after June 30, 2011 that offers new employees a choice between a 10 percent employer contribution to a 401(k) plan, or a 10 percent employer contribution that is split between a lower DB pension benefit and a 401(k) plan.
- Michigan adopted a cash balance plan for its new public school employees in 2010.
- Louisiana adopted such a plan for new employees in 2013 (the legality of which is currently being contested).
- Kansas acted to put employees hired after 2014 into a cash balance plan.

Hybrid and DC-only systems, where implemented, have led to reduced benefits for affected workers. The Teacher Retirement System of Texas measured the pre- and post-reform benefit levels of six state pension systems that moved to a hybrid or DC-only plan. They found that benefits for those participating in the new system were reduced by an average of 30 percent compared to the old system.[45]

In a few cases, public DB pensions have not just been closed, but frozen; that is, future benefit accruals have

been reduced for existing workers. Most recently, Rhode Island reduced benefits for existing pension plan participants by moving existing and future employees into a new hybrid plan, with existing employees subject to lower DB pension benefits and a mandatory DC plan. Oregon also did this in 2003. Given that other states are facing pressure to enact pension freezes that reduce the benefits of existing employees as well as new hires, it is important to understand the impact of such measures on retirement income for employees at various stages of their careers, considered later in this paper.

In order to make the best possible decisions about how to make retirement benefits sustainable, policy makers and the public need comprehensive information about the costs and benefits of pension reform, and to what extent savings generated in one place are offset by increased costs in another. Such extra costs can come from freezing pensions and from DC plans.

Closing a DB Pension Increases Unfunded Liabilities

Establishing a DC plan for new hires, or even a hybrid plan, does nothing to reduce existing unfunded liabilities. For example, the federal government still faces massive unfunded liabilities from its frozen DB plan, which remain decades after it created a hybrid system for new hires.[46] The application of actuarially sound accounting, investment, and funding policies may compress the cost of amortizing existing unfunded liabilities, increasing the cost of the plan until the unfunded liabilities are eliminated. In addition, freezing a pension is likely to substantially increase unfunded liabilities, regardless of how they are amortized and funded. Inappropriately deferring these costs would be contrary to the rationale for pension reform.

A mature, open DB plan has a mixture of early-, mid-, and late-career members, enabling the pension portfolio to be diversified over a long investment horizon. It is a widely understood fact among pension experts that cutting off new entrants and their associated contributions shortens the investment horizon and increases the liquidity needs of the pension fund. For pension funds following accepted accounting practices, one potential consequence of closing a plan to new entrants is that the amortization period for paying down existing unfunded liabilities may have to be shortened, depending on the demographic makeup of the plan.

Another consequence is that closed plans will have to shift assets towards stable, more liquid investments and correspondingly reduce investment return assumptions, which in turn will raise the cost of funding promised benefits.[47] For this reason, state-level studies detailed later in this brief have found that closing off a DB pension plan could increase its unfunded liabilities by as much as one-half.

Exacerbating the matter, recently revised GASB regulations impose new requirements that will significantly increase calculated unfunded liabilities for some public pension plans. Unlike in the past, when total pension liabilities were discounted using the long-term expected rate of return on investments, the new rules require certain plans that are not well-funded to discount the unfunded portion of liabilities using a much lower rate derived from the yield on tax-exempt general obligation municipal bonds.[48]

Costrell suggests that because GASB's Actuarially Required Contribution (ARC) (which is being eliminated from current accounting rules) was not intended to be a funding policy standard, state and local governments have wide latitude in how they amortize and pay off unfunded liabilities.[49] The issue of whether or not the ARC was appropriately understood as a legal funding policy standard may be up for debate. However, such a debate misses the real point, which is that the pension funds with the lowest funding ratios became poorly funded because sponsors did not consistently fund the ARC every year, while the sponsors of the healthiest pensions exercised strong funding discipline.[50]

The bottom line is that while new GASB rules give no guidance on funding requirements, it would be

irresponsible not to follow rigorous actuarial funding standards. A consortium of respected national associations of state and local government leaders, convened by the Center for State and Local Government Excellence, is currently drafting principles for an actuarially sound pension funding policy that emphasizes timely and responsible funding of pension obligations as well as accountability and transparency. Another integral part of these principles is that annual contributions should be reasonably related to the expected and actual cost of each year of service so that the cost of employee benefits is paid by the generation of taxpayers who receives services from those employees.[52] Pension funding is always a policy decision. This decision should appropriately reflect sound, rigorous actuarial standards; otherwise, policymakers risk incurring negative consequence for long-term government finances and for retirees' pension security.

Substituting DB Pensions with DC Accounts Is Inefficient

Proponents of 401(k) style accounts for public sector employees argue that they are both less risky for employers *and* less costly. DC accounts do indeed shift investment risk and market risk from employers to employees. In addition, where employers in DB plans bear aggregate longevity risk—the risk that pensioners will, on average, live to collect benefits longer than expected—DC accounts require each employee to bear the risk of outliving their savings. However, DC accounts also entail fundamentally greater overall risk and marked inefficiencies compared to DB pensions. These risks and inefficiencies translate to significantly higher funding costs for a given level of retirement benefit, and a high level of risk for individual employees. This means that for each taxpayer dollar spent on retirement benefits, a DC system yields substantially lower value compared to a DB system.

In general, 401(k) accounts generate lower investment returns than do DB pensions, which can diversify their investment portfolios across a wider array of asset classes and invest over a much longer time horizon. Differences in asset allocation account for about 1 percentage point lower average annual returns in DC accounts than in DB pension funds during the 14 years ending in 2010, according to CEM Benchmarking.[53] This is consistent with a number of other studies on comparative returns in DB pensions and 401(k) accounts over the long term. At the same time, averages do not tell the whole story for 401(k)s. An examination of disaggregated data on individual portfolio composition reveals that a majority of 401(k) accounts are not properly diversified, either being invested almost entirely in stocks or having no equity position at all.[54] Furthermore, research in behavioral finance has found that most individuals do not invest in a way that is appropriate for their risk tolerance and age.[55]

Retirement benefits that rely heavily on 401(k)s also require prudent workers to accumulate assets that will last beyond their average life expectancy, while DB plans pool longevity risk and thus need to be funded only for the group's average life expectancy. In order to attain 90 percent certainty that workers will not run out of their retirement funds, and assuming that they are willing to lower their standard of living if and when they attain advanced age, a DC account requires a contribution rate 28 percent higher than a DB plan.[56]

Because of these and other factors, providing comparable benefits through a DB pension costs 46 percent less than through a 401(k).[57] Conversely, providing the same retirement income through a 401(k) plan costs 83 percent more than it does through a DB pension.

Transitioning to DC Plans May Reduce Risk for Public Employers, But May Also Cost More

In light of the above realities, public retirement systems that have seriously examined the cost of alternative plans have consistently found DC-centered arrangements to be significantly more costly than DB-centered

arrangements for a given level of benefit. It is telling that states that have carefully examined the complexities of pension reform have not concluded that shifting to DC plans is the best course of action. Studies indicate that incrementally modifying DB pension benefits to lower long-term costs and increasing contributions is the usually the most cost-efficient option.

The Employee Retirement System of Texas (ERS) completed a comprehensive report in 2012 that considered multiple factors in designing pension reform, including the role of DB pensions in employee recruitment and retention, the value that pooled investing brings to both workers and the state, and the cost of freezing DB plans.[58] The ERS report noted that in many cases, the increased cost of freezing a DB plan, combined with the inefficiencies of DC plans described earlier in this brief, made it sensible to "modify the existing plan design instead of switching all employees to an alternative plan structure."[59]

The Teacher Retirement System of Texas (TRS) also completed a detailed analysis of the costs and benefits of alternative retirement systems, noting that TRS members already receive relatively low benefits compared to their peers. The study included Monte Carlo simulations of probable outcomes for an individually directed DC plan, which illustrated the risks that would be faced by workers. The study concluded that even if contributions remained the same as in the current DB plan, participants in an individually directed DC plan would have only a 50 percent chance of earning investment returns high enough to get 60 percent or more of the DB plan benefit. Conversely, the study found that it would cost 12 to 138 percent more to fund a target benefit through alternative retirement systems. Individually directed DC accounts were found to be the most costly, and a DB system the least costly. Finally, the study estimated that freezing the DB pension could cause the liability to grow by nearly an estimated $11.7 billion—49 percent higher than the current liability—due to lower investment returns resulting from a transition to a more liquid asset allocation.[60]

In Minnesota, a 2011 study on switching to a DC plan for new hires found that it would decrease costs over the medium term and that it would dramatically increase costs in the short term. And over the long term, the DC plan would be less efficient than the existing DB system in cost-benefit terms.[61] The study estimated transition costs of $2.8 billion for the state, due in large part to accelerated amortization of unfunded liabilities in the closed pension. It also found that the state would face increased risk of future retirees relying on public assistance if they do not accumulate high enough account balances— due not just to market risk, but also to higher fees and lower returns in individual investment accounts compared to DB funds—and lower overall efficiency due to individualized longevity and investment risk.

Another example is in California, where the California Public Employees Retirement System (CalPERS) calculated the cost of the hybrid retirement plan proposed by Governor Brown in March 2012. The proposal called for public employees' target retirement incomes to be evenly split across Social Security, a (substantially reduced) DB pension, and DC accounts. The agency assumed that the DC component would earn an investment return that was 1 percent lower than the DB component, consistent with recent research on comparative returns between DB pensions and 401(k)s. The analysis concluded that while a hybrid system would reduce the risk of future volatility in required employer contributions, it would not generate any significant cost savings for the state—despite the fact employees would contribute more funding and receive less benefit under the proposal. The report did estimate that savings would be greater for local government, but most of this savings was attributable to assumptions about the magnitude of increased employee contributions at the local level rather than plan design.[62] The state Legislative Analyst Office supported reform because it would reduce financial risk to the state and questioned some of CalPERS' assumptions, but acknowledged that a closed or frozen pension with reduced income would require changes in investment asset mix, increasing expenses in the short and medium term.[63]

It is up to policy makers to continue to weigh the pros and cons of different pension reform strategies,

including how much risk and cost are acceptable. If public employers choose to reduce risk without providing sufficient funding for an adequate retirement benefit, the value of deferred compensation lost to employees will significantly exceed the value of employer savings, with consequences for both workers' retirement security and employers' ability to recruit and retain desirable workers, as will be discussed in the next section.

III. Impact on Recruitment, Retention, and Productivity in the Public and Private Sectors

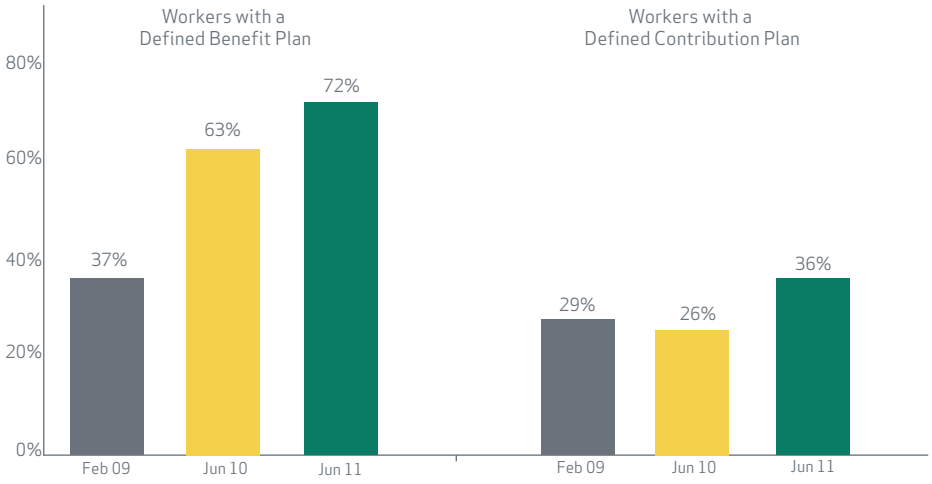
Shifting from DB pensions to DC accounts as the primary retirement benefit can negatively affect employers' recruitment and retention of skilled workers. DB pensions are proven to help employers recruit and retain qualified employees, including those who are focused on long-term rewards, and to help manage the exit of older employees according to employer needs. Consequently, closing or freezing DB pensions and substituting them with DC accounts can negatively affect the ability of firms to meet recruitment and retention goals. This can lead to lower workforce productivity overall.[64] Finally, because DB pensions play a critical important role in the balancing public sector compensation in relation to the private sector, pension cuts are likely to cause upward pressure over the long run for other forms of compensation to be increased for high-skilled workers.

Value of DB Plans to Employees

The benefits of DB pensions as a tool to recruit and retain valuable skilled workers are well documented.[65] Because employees place a high value on the guaranteed income provided by DB pensions, they willingly accept lower wages.[66] Furthermore, the latest Towers Watson Retirement Attitudes Survey of employees in large private firms found that the value of DB pensions to workers is growing. First, the share of workers who reported that they were willing to trade pay for guaranteed lifelong retirement benefits increased from 46 percent in 2008-2009 to 55 percent in 2010-2011. Second, young workers place a much higher value on retirement income security in the aftermath of the last financial crisis (Figure 4): "Nearly three-fourths (72 percent) of young employees whose employer offers a DB plan cited the retirement plan as a strong incentive to stay with their employer—nearly double the percentage (37 percent) in 2009 and twice the retention value reported by young workers whose employers offer only a DC plan."[67]

The above survey also found that workers who have had their accrual of benefits sharply reduced in a pension freeze value their company's retirement program even less than workers at companies with only DC plans.[68]

Figure 4:
Importance of Retirement Plans to Retain Workers under Age 40
Share of Workers Reporting that Retirement Program Is Important Reason for Staying with Employer



Source: Adapted from Nyce 2012, Figure 6.

An employee benefit survey conducted in 2011 by MetLife found a similar shift in young workers' attitudes towards retirement benefits: more than half of employees aged 21-30 reported being very concerned about their long term financial security, compared to one-third in 2003. Additionally, younger workers are significantly more likely than older workers to report that benefits played a large role in choosing and staying with their current employer.[69]

Studies focused on public sector workers have also found strong preference for DB pensions. Munnell, Haverstick and Soto found that public employees largely prefer DB pensions to other forms of retirement income.[70] Similarly, public employees consistently expressed strong preferences in favor of DB pensions according to national public opinion polls.[71] Olleman and Boivie found that when public employees are given the choice between a DC plan in lieu of a DB pension, they overwhelmingly choose the latter. For example, in 2010, a mere 4 percent of public employees in Ohio elected the DC plan over the DB pension when offered, a result that has been consistent since the option was put in place in 2004. Additionally, between 2002 and 2011, 68 percent of Washington state employees chose an all-DB pension over the default of a combined DB pension and DC plan.[72]

DB Pensions Help Regulate Turnover and Tenure

Because of their value to employees, retirement benefits are an important determinant of their loyalty to their employer. DB pension plans tend to have lower turnover and longer average tenure compared to those with DC plans. Consequently, Boivie and Weller found, switching from DB pensions to DC accounts is likely to negatively affect the ability of public employers to attract and retain desirable skilled workers.[73]

Annual surveys conducted by MetLife have consistently found that retirement benefits are the third most important factor—after pay and health benefits—in employees' loyalty to their employer.[74] Earlier studies found strong evidence that firms with DB pensions have significantly less turnover and longer employee tenure than firms without DB pensions.[75] More recently, a study by the Center for Retirement Research at Boston College (CRR) found that DB pension coverage is associated with longer job tenure; specifically, 4 more years compared to having no retirement benefit, and 1.3 more years compared to DC plan coverage.[76] And while private employers in general tend to underestimate the value of retirement benefits to employees[77], the vast majority of DB pension sponsors (84 percent) believe that their DB pensions positively impact employee retention.[78] In other words, employers that offer DB plans correctly understand the value of retirement income security to workers, and are rewarded by employee commitment.

Moreover, traditional DB pensions, which weigh benefits towards employees with longer tenures, help recruit employees with characteristics that may be valuable to employers through self-selection. Longer-term employees prefer traditional DB pensions to DC accounts or cash balance plans.[79] Employers use DB pensions to attract employees who are able to delay gratification and focus on long-term rewards.[80]

Additionally, DB pensions help employers influence employee decisions on when to retire, in particular by encouraging employees to retire when their productivity levels off or decreases.[81] Among workers with DB pensions, those who have higher levels of "affective commitment" to their jobs retire about two years later on average than those with low levels commitment.[82] DB pensions can encourage older and less productive workers to leave the labor force.

Federal employee retirement systems provide an interesting opportunity to study the different impacts that DB pensions and hybrid plans can have on an employee's decision to retire. The Federal Employee Retirement System (FERS) integrates Social Security, a modest DB pension, and a DC component (the Thrift Savings Plan, or TSP). The FERS system was created for new employees when the Civil Service

Retirement System (CSRS), the federal government's DB plan, was closed to new employees. One study found that FERS employees lowered their retirement rate by 30 percent during the 2008-2009 financial crisis—a 50 percent higher reduction in retirement than occurred among retirees covered by the CSRS plan. The trend to delay retirement was especially pronounced among FERS employees earning $100,000 or more, who as a group were more heavily invested in stocks than lower wage workers.

The above dynamics translate into higher productivity with DB pensions.[83] The takeaway lesson for employers considering pension restructuring is that reduced security in retirement benefits leads to declining employee commitment and an increase in turnover and associated costs, as well as potentially decreased productivity growth. Macro-level evidence for this can be found in a CRR study cited above, that examined the timing of the shift from DB to DC benefits in the U.S. economy alongside turnover rates, and suggested that increased turnover *followed* this change in retirement benefits, not vice versa as some suggest.[84] There is strong evidence that cutting DB pension benefits leads to declining employee loyalty and motivation. A broad indicator is found in a recent MetLife survey finding of decreased employee loyalty in the context of stagnant wages relative to productivity, benefit cuts, and job insecurity.[85] Ultimately, moving from a DB to a DC plan has been found to result in loss of productivity compared to firms that kept their DB plans.[86] This may be due to increased turnover, as experienced and higher skilled employees are replaced with less experienced, less skilled employees.

DB Pensions Play an Important Role in Balancing Public Sector Compensation with the Private Sector

DB pension benefits must be understood in the context of total compensation. There has been a great deal of debate about public-private pay differentials, with studies producing divergent outcomes because of methodological differences. Studies that simply compare average compensation are fundamentally flawed in light of big differences in the makeup of private and public sector employment. Studies based on job descriptions tend to find a public sector advantage in pay, but raise key methodological problems given the lack of apples-to-apples private sector comparisons for many common public sector jobs. Rigorous studies that focus on worker characteristics such as education and skill level are particularly germane for considering impacts on labor force quality, recruitment, and retention. Those studies find that, as a group, the public sector workforce is paid less than their private sector counterparts given their education and skill level.

For instance, a CRR study found that total compensation—including wages and benefits—for public sector workers is 4 percent less than private sector workers.[87] Bender and Heywood found that "Over the last 20 years, the earnings for state and local employees have generally declined relative to comparable private sector employees, and that their total compensation including benefits is about 7 percent less.[88] Moreover, a larger share of public compensation is deferred through retirement benefits.

In particular, professional workers with advanced training take a substantial pay cut compared to private sector counterparts of equivalent education and skill. Not only are salaries higher in private firms, there are opportunities for additional compensation through bonuses, profit-sharing, and other perks that are not available in the public sector. Because DB pension benefits help offset this loss, pension cuts are likely to cause upward pressure on base pay for this group of workers over the long run if public employers wish to remain competitive.[89]

IV. Impact of Pension Freezes on Workers' Retirement Security

Employees experiencing a hard freeze of their DB pensions face a possible reduction in anticipated retirement incomes. Almeida and Fornia calculated that a DB pension could provide a given level of lifetime income in retirement for just over half the amount that one would need to save in a DC plan to generate the same benefit.[90] Thus, while a majority of workers who cease to earn future DB benefits start participating in an alternative program, often a DC plan such as a 401(k), the DC plan does not provide enough increased savings to make the employee whole. It is also important to consider the ramifications of reform for the 27.5 percent of public employees who are not covered by Social Security.[91] For most of these workers, a public sector DB pension is the only significant source of guaranteed income that they will have in retirement.

The consequences will vary for employees based on their age, years of service, and market returns.[92] Older workers near retirement are generally affected the least because they have already accrued most of their benefits and face just a few years of lower benefits after a pension freeze. Younger employees at an earlier stage in their careers have many decades for DC savings to accumulate, assuming adequate and consistent contributions; however, they still face significant risk of not meeting their retirement income goals. Mid-career employees generally have fewer years to allow their DC account savings to offset the losses due to a frozen DB pension.[93] Thus long-tenured, mid-career employees are the most likely to see the greatest reduction in anticipated income.

DC plans where employer contributions are contingent on employees making a contribution to the plan pose additional challenges for younger and mid-career employees. This may impair low-wage workers from restoring their projected income to the levels of the earlier plans since many not be able to afford additional savings.[94]

Munnell et al. illustrate that early-career employees can theoretically achieve the same retirement income through a 401(k) plan as a DB pension, assuming a given rate of investment return and adequate contributions, while mid-career employees face substantial losses. Theoretically, a newly hired 35-year-old worker can achieve similar retirement income replacement levels at age 62 through a DB pension or a DC plan. DB pension benefits based on a 27-year career with a 1.5 percent multiplier would replace 43 percent of pre-retirement earnings, and a typical 401(k) plan with a 50 percent matching employer contribution based on an employee contributing 6 percent of salary over the same length career would replace 44 percent of pre-retirement earnings.[95]

The study found that in contrast to the younger employees, a mid-career employee who sees his or her DB pension freeze at age 50 after 15 years of service faces a substantial reduction in total retirement income. Their now frozen DB pension will only replace 13 percent of their pre-retirement earnings while the total 9 percent of earnings contributed to the 401(k) account would accumulate to a nest egg that could only produce 15 percent of their pre-retirement pay. The 28 percent combined income replacement from the frozen DB plan and new DC account is more than one-third lower than the original full career DB pension benefit. Even if employees could more than double on their contributions to the 401(k) plan, they could not make up the difference in lost benefits.[96]

In addition, these calculations do not take into account the cost of the DB pension—which would likely be substantially lower than the 401(k) contributions in the above scenario—or the impact of market volatility on 401(k) retirement incomes on both early and mid-career employees.

When retirement plan sponsors move from DB to DC plans, short service and younger employees may

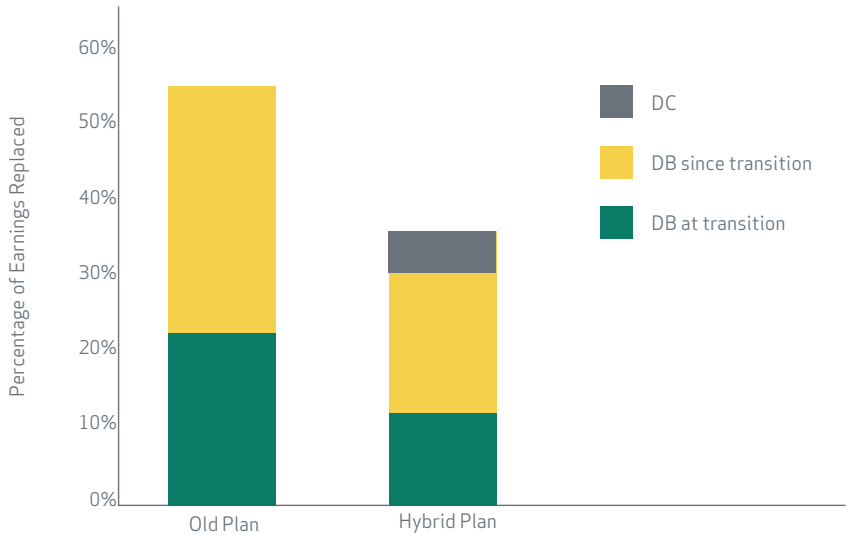
theoretically fare better under the new plan, but long service, mid-career employees will likely be the losers. Butrica et al. constructed a micro-simulation model to understand the potential magnitude on the retirement income of baby boomers under a worst case scenario. They assumed that over a 5-year period all private sector pensions and one-third of public sector pensions stop future accruals for all employees, and all employees are in the DC plan only.[97] Because many of the first baby boomers are now over age 60, the most significant impact would fall on the late wave boomers. The simulations indicated that 26 percent of the late wave boomers would have lower retirement incomes while 11 percent would likely see higher incomes.[98]

The case of Rhode Island illustrates how the above dynamics play out in a real-world pension freeze and the ramifications of benefit changes for workers at different stages of their careers. The state imposed a soft freeze on its DB pension for state employees and teachers in the context of a hybrid plan that took effect on July 1, 2012, reducing DB pension benefits for all current employees and retirees. Accrued benefits are fixed based on the current salary, while future benefits are based on a multiplier that is about half that of the old plan.

The Rhode Island treasurer's office released *An Employees Guide to Understanding the Rhode Island Retirement Security Act* (Guide), which outlines the changes in the state retirement systems but leaves many unanswered questions for mid-career employees. For example, the Guide's sample calculation of the "proportional downward adjustment" is for an older employee within two years of retirement. Publications issued by Treasurer Raimondo during the legislative consideration also focused on the less impacted employee groups of young and older workers.[99]

In testimony before the Rhode Island Assembly Joint Fiscal Committee, actuarial consultant William Fornia illustrated the impact of the plan design changes on the active group most likely to see the largest negative impact (Figure 5). For example, a 45-year-old teacher who anticipated retiring at age 62 with 30 years of service under the old plan would have been eligible for a retirement benefit that would replace 56.3 percent of pre-retirement income. Under the new hybrid plan's DB component, she would only replace only 31.1 percent of pre-retirement income, or about 45 percent less than the old plan. The amount accumulating in her new DC plan would be able to provide a lifetime income of just 5.6 percent of pre-retirement earnings.[100] Thus, the teacher would receive 35 percent less in retirement income, which would be similar to a 20 percent cut in pay.[101]

Figure 5:
Defined Benefit vs. Hybrid Plan Benefits
Typical Rhode Island Teacher, Age 45 with 13 Years of Service, Planning to Retire at 62



Source: Adapted from Fornia 2011.

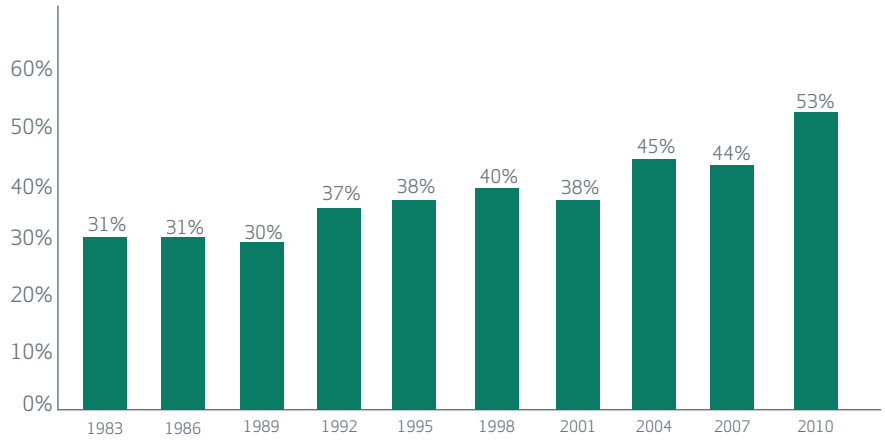
Conclusion

Both private and public employers face short-term pressure to consider closing or freezing their DB plans. However, there is no one-size-fits-all solution. In general, there are distinct regulatory, labor market, and business dynamics linked to the decline of pensions in the private sector that do not necessarily apply to state and local governments. Moreover, closing a pension and shifting to a DC plan for new hires is less cost-efficient compared to adjusting DB benefits or switching to a hybrid plan in which limited contributions continue to flow into the existing DB plan. Closing or freezing a plan is likely to lead to many unintended consequences that need to be considered. Indeed, many state level studies have found that closing a DB plan could cost substantially more than modifying it.[102]

There is a notable disconnect in policy debate about pensions for private and public employees. On the one hand, critics are calling for retirement benefits in the public sector to be brought in line with those in the private sector, where employers usually offer only a 401(k) plan if they offer a retirement plan at all. On the other hand, the press abounds with stories of inadequate 401(k) balances and the fact that a majority of American workers are projected to retire without enough income to meet basic expenses.

The shift from DB pensions to DC plans has factored into the dramatic increase in the share of households that are not on track to have adequate retirement income. Over the past two decades, the National Retirement Risk Index, which measures the ability of workers to maintain their standard of living in retirement, increased from 31 percent in 1983 to 53 percent in 2010 (Figure 6).[103] Employers are also worried; AonHewitt has found that only 4 percent of employers are "very confident" that their employees are on track to retire with sufficient assets.[104] Future demands on public assistance for the elderly could increase as more retirees without DB pensions are at risk of falling into poverty.[105]

Figure 6:
The National Retirement Risk Index, 1983-2010



Source: Munnell, Webb, and Golub-Sass 2012, Figure 2.

In addition to the direct financial impact of significantly scaling back DB pensions on employees, stakeholders need to consider the broader impact on state and local economies. Guaranteed retirement income streams, including DB pension benefits and Social Security, help stabilize consumption during economic downturns. In contrast, retirement income from DC accounts is pro-cyclical, increasing during growth periods and decreasing during economic downturns. This can have a destabilizing effect on the national and local economies.

A NIRS study on the economic impact of DB pension payments found large multiplier effects: every dollar paid out in pension benefits supports $2.37 in national economic output. In 2010, DB pension income supported 6.5 million jobs in the U.S., with the largest employment impact in the localized sectors of food services, real estate, health care, and retail trade.[106] A recent study by Ghilarducci, Saad-Lessler, and Fischer demonstrated that Social Security, especially the Old-Age Survivors Insurance program, reduces declines in economic output during economic downturns, while outflows from 401(k) accounts, which decrease during market downturns, contribute to economic instability.[107]

These broader considerations, in addition to those concerning employment relations and cost-efficiency presented in this brief, indicate that policy makers should pause to consider whether the direction in which much of the private sector has traveled in terms of retirement benefits is the right path to follow. So far, rather than simply abandon this human resources tool, state governments, like many of their counterparts who are large private sector employers, have determined that modifications to the existing DB plan provide better short- and long-term sustainability of pensions.

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